



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,460	12/13/2001	Charles E. Taylor	SHPR-01041USJ SRM	3479
23910	7590	04/08/2004	EXAMINER	
FLIESLER MEYER, LLP FOUR EMBARCADERO CENTER SUITE 400 SAN FRANCISCO, CA 94111			TRAN, THAO T	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 04/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/023,460

Applicant(s)

TAYLOR ET AL.

Examiner

Thao T. Tran

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-60, 82-87, 92-94 and 100-102 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-60, 82-87, 92-94 and 100-102 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/31/03; 1/8/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 1711

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114.

Applicant's submission filed on July 17, 2003 has been entered.

Election/Restrictions

2. Applicants' timely response to the restriction (election) requirement in the prior Office action of December 16, 2003 is acknowledged.

3. Claims 25-60, 82-86, 92-94, and 100-102 are currently pending in this application.

Claims 62-81, 87-91, and 95-99 have been canceled.

Specification

4. The abstract of the disclosure is objected to because it contains more than 150 words.

Correction is required. See MPEP § 608.01(b).

Art Unit: 1711

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 27 and 46 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 27 and 46 recite the pin electrode as being triangle-shaped that has no proper support in the specification. As illustrated in Fig. 4I, the pin electrode is cone-shaped and not triangle-shaped.

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 1711

8. Claims 25-27, 32, 36-39, 41-46, 51, 55-56, 58-60, 82-, 86-87, 92-94, 100-102 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-4, 6-10, 13-16, 22-26, and 36-37 of U.S. Patent No. 6,544,485. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the claims of the patent overlaps with that of the instant claims, rendering them obvious over each other.

The claims of the patent disclose an air-transporter-conditioner, comprising a housing defining at least one input port and one output port and an air channel therebetween, and an electro-kinetic system in the housing; wherein the electro-kinetic system includes first and second electrode arrays, the first electrodes have tapered profile and are pointed or tapered pin-shaped, and a distal end comprising electrically conductive fibers, the second electrodes have a circular opening and disposed downstream from the first electrodes. Therefore, the electrodes in the claims of the patent read on the pin-ring configuration arrangement of the electrodes in the instant claims.

Thus, the scope of the claims of the patent overlaps that of the instant claims, rendering them obvious over each other.

With respect to the shape of the housing or how the housing is positioned or how the electrodes operate, it has been known within the skill in the art that configuration and functional limitations or how the housing is positioned would have no significant patentable weight in an apparatus claim.

Art Unit: 1711

Remarks

9. In regards to claims 27 and 46, in light of the specification, the examiner is interpreting that the configuration of the pin electrode being cone-shaped.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 25-33, 36-38, 41-52, 54-55, 58-60, 82-84, 86-87, and 101-102 are rejected under 35 U.S.C. 102(e) as being anticipated by Taylor et al. (US Pat. 5,975,090).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

In regards to claims 25-27, 32, 36, 41-46, 51, 55, 58-59, 82-83, 86-87, and 101-102, Taylor teaches a hair brush (electro-kinetic air transporter-conditioner system), comprising a body with a head portion (housing) and an ion generator (ion generating unit) disposed inside the head portion; the ion generator comprising a plurality of pin-ring electrode configurations located one above the other; wherein each configuration comprises a pin electrode located closer to the inlet vent and pointing toward the opening of a ring electrode; and the inlet and outlet

Art Unit: 1711

vents (or elongated recesses) are elongated along a length of the housing (see abstract; Figs. 4-5; col. 3, ln. 25-32, 44-45; col. 9, ln. 25-65).

Since the hairbrush can be in various positions; at an upright position, Taylor's hairbrush would anticipate the claims.

In regards to claims 28-31, 33, 47-50, and 52, Taylor teaches a switch S1 (user control) to energize the system, a high voltage pulse generator unit 170, and a low voltage oscillator circuit 190 and a switch 200 to control the pulse output (see Fig. 2-3; col. 3, ln. 32-35; col. 4, ln. 37-44).

In regards to claims 38 and 50, Taylor teaches each pin electrodes comprising conductive fibers (see Fig. 4K; col. 10, ln. 26-36).

In regards to claim 84, Taylor teaches the ring electrodes being removable from the housing (see col. 4, ln. 5-7). Moreover, it has been within the skill in the art that functional limitations would have insignificant patentable weight in an apparatus claim.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 35, 39, 54, and 92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor as applied to claims 25 and 44 above.

Taylor is as set forth in claims 25 and 44 above and further incorporated herein.

Art Unit: 1711

Taylor teaches switch S1 (user control) on the side of the housing, and not on the top surface of the housing (see Fig. 2). However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the position of the switch would have been modified to be at the top surface and would have functioned equally well, since Applicants have not disclosed the advantages of the switch in one position over any other position.

Taylor further teaches other configurations may be used for the hair brush (see col. 4, ln. 7-10). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the housing of Taylor would have been modified to be a figure-eight shape and the apparatus would have worked as equally well.

14. Claims 25-33, 35-37, 39, 41-52, 54-56, 58-59, 82-87, 93-94, and 100-102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawashima (US Pat. 4,516,991) in view of Fritzius (US Pat. 3,638,058).

Kawashima teaches an air cleaning apparatus (electro-kinetic air transporter), comprising an upstanding, elongated casing (housing) with an air inlet in front and an air outlet in the rear, a plurality of dust collecting panel electrodes arranged in parallel, ionizing wires, a voltage source connected to the dust collecting electrodes and the ionizing wires such that an air flow is created between the ionizing wires and the collecting electrodes (see Fig. 2-9; col. 1, ln. 8-29).

Kawashima further teaches a base to support the housing in an upstanding position (see Figs. 2-5). Kawashima further teaches a power source E1, power switch 27 (see Figs. 2 & 4; col. 4, ln. 63-64).

Kawashima, however, does not teach a pin-ring electrode configuration.

Art Unit: 1711

Fritzius teaches an ion wind generator, comprising pairs of pin-shaped cathodes and ring-shaped anodes; wherein an air stream flows from the cathodes toward the anodes (see Fig. 1; col. 1, ln. 8-20). Fritzius further teaches that with this configuration a heavy flow of wind is created, resulting in extremely effective and inexpensive ion generator.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have employed the pin-ring electrode configuration, as taught by Fritzius, in the air cleaning apparatus of Kawashima, for the purpose of improving the efficacy and cost of the apparatus.

Fritzius further teaches the use of alternating pulses in order to accelerate the speed of the ions or airflow further (see col. 1, ln. 23-25; col. 2, ln. 33-37). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have employed pulse voltage as taught by Fritzius in the apparatus of Kawashima, for the purpose of increasing the airflow and also minimizing anode current thereby reducing electrolysis effects (see col. 1, ln. 30-32).

Kawashima is silent with respect to a user control being located on the top surface of the housing. However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that whether a user control is on the top surface or on the stand, it would have worked equally well.

The same arguments are presented for the shape of the housing.

Kawashima teaches the apparatus having a handle 9 (see Fig. 4). The reference is silent with respect to the use of a handle to assist in removal of the second electrode out through the top of the housing. However, it would have been obvious to one of ordinary skill in the art, at the

Art Unit: 1711

time the invention was made, that Kawashima's handle would play a role in assisting the removal of the second electrode; and that how the second electrode would be removed from the housing would have little patentable weight in an apparatus claim.

15. Claims 34, 40, 53, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawashima and Fritzius as applied to claims 25 and 44 above, and further in view of Anzai (US Pat. 4,772,297).

Kawashima and Fritzius are as set forth in claims 25 and 44 above and incorporated herein.

The Kawashima combination does not teach the air inlet and air outlet to be covered with louvers.

Anzai teaches the use of air inlet and air outlet with louvers B1 and B2 (see Fig. 1-4). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have included the louvers covering the inlet and outlet, as taught by Anzai, in the apparatus of the Kawashima combination, for the purpose of providing better control of the airflow into and out of the apparatus.

16. Claims 38 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawashima and Fritzius as applied to claims 25 and 44 above, and further in view of Taylor.

Kawashima and Fritzius are as set forth in claims 25 and 44 above and incorporated herein.

The Kawashima combination does not teach the pin electrode including a plurality of conductive fibers.

Art Unit: 1711

Taylor teaches the pin electrode comprising conductive fibers (see Fig. 4K; col. 10, ln. 26-36). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have employed the pin electrodes comprising conductive fibers, as taught by Taylor, in the apparatus of the Kawashima combination, for the purpose of more emitting surfaces, hence enhancing the output of ions.

Contact Information

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 571-272-1080. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thao Tran

tt

April 1, 2004